

INVITATION TO BID

City of Murphysboro

Communications Tower

Waste Water Treatment Plant Project

January 2016

INVITATION FOR BIDS

This invitation to bid is issued for the purpose of establishing a contract to supply the City of Murphysboro, IL with the following

Project Overview

Project Title: Waste Water Treatment Plant Communications Tower

Bids Due Date: Tuesday, February 9, 2016 4:00 PM
Attention: Brian Manwaring

Project Completion Date: June 15, 2016

Bid Bond: 5 percent of Total Bid

Performance Bond: Required 100 percent of Project Cost

Payment Bond: percent of Total Bid

Contact Person:

Brian Manwaring, IT Director
City of Murphysboro
1101 Walnut Street
Murphysboro, IL 62966
Phone: (618) 687-4216
E-mail: bsmanwaring@murphysboro.com

City Engineer:

Ted Beggs
JT Blankinship Engineering
401 South 17th Street
Murphysboro, IL 62966
Phone (618) 687-1771
E-mail: t.beggs@jtblankinship.com

SECTION 1.0 - GENERAL INFORMATION

1.01 Project Summary

The City of Murphysboro is in the process of constructing a new waste water treatment plant. To support this project there is a need for a communications tower to provide a wireless network bridge to the City of Murphysboro's network.

The city is soliciting sealed bids for the following tower and construction work at the following site:

1. **Site Name: WWTP:** Supply and erect a new 150 foot self-supporting communications tower to be installed adjacent to the under-construction Waste Water Treatment Plant. Work will require supply and installation of all tower structure, foundations, climbing ladder, antenna mounts, cable ladder, and supply of grounding grid for the tower. The construction and installation of all equipment shall be completed in a manner which meets or exceeds all manufacture's specifications.
2. **Site Name: WWTP – Site preparation Initial and final:** Supply all necessary labor and materials to prepare site for installation of the new tower. This is to include any necessary leveling of the land parcel to suitable requirements to properly place the tower foundations. Any spoils will be disposed of in such a manner agreeable to the site owner. Final site grading, graveling, grounding, and clean up will be included. Note the site plan graphic in the back of this document, which outlines the location of the tower.
3. **Site Name: WWTP – Equipment Installation:** The City of Murphysboro will supply two pieces of equipment for installation on the tower. The equipment to be installed on the tower will be a Ubiquity Air Fiber Radio/Antenna and a Pan-tilt-Zoom security camera. Both pieces of equipment will require outdoor category 6 cabling from the equipment to the communications closet inside the control building. A conduit will be supplied from the exterior of the building to the network communications closet inside the building. Bidder shall provide the necessary outdoor category 6 cable and misc hardware for the mounting of this equipment to the tower. The air-Fiber unit should be aimed toward the 17th Street Water tower (37.766850, - 89.342154)

1.02 Project Schedule and Completion Date(s)

The tower should be erected and project details fully completed no later than June 15, 2016. Construction of Tower should be coordinated with general contractor constructing the plant, River City Construction.

1.03 Bid Due Date and Opening

- Sealed bids are due at the City Administration Building no later than 4:00 pm on Tuesday, February 9, 2016 Bid responses should be addressed to:

WWTP Communications Tower Bid
City of Murphysboro
1101 Walnut Street
Murphysboro, IL 62966

The Request for Proposals (RFP) response will be opened at the City Council Meeting on February 9, 2016.

1.04 Questions

All technical questions shall be referred in writing to:

Brian Manwaring, IT Director
City of Murphysboro
1101 Walnut Street
Murphysboro, IL 62966
Phone: (618) 687-4216
E-mail: bsmanwaring@murphysboro.com

Questions about the placement of the tower should be directed to:

Ted Beggs
JT Blankinship Engineering
401 South 17th Street
Murphysboro, IL 62966
Phone (618) 687-1771
E-mail: t.beggs@jtblankinship.com

Questions about the coordination of the installation of the tower should be directed to:

Tom Polczynski
River City Construction
1509 N. Main Street
Benton, IL 62812
Phone (618) 435-2612
Cell (618) 453 7990
E-mail: tpolczynski@rccllc.com

1.05 Final Inspection and Acceptance

Upon completion of all installation work, testing, and verification, a final inspection and acceptance will be conducted by the city and the City Engineer.

The system inspection will be coordinated by:

Brian Manwaring
City of Murphysboro

-and-

Ted Beggs
J.T. Blankinship

A) System Audits and Inspection:

The inspection of the tower will include:

- a. Physical inspection of all equipment.
- b. Physical inspection of all structures, lighting and grounding systems, cabling, cable connections, and general installation work.
- c. Examination of related engineering documentation supporting all items identified in (A) and (B) above.

B) Final Acceptance: Final system acceptance, and subsequent payment for all system work and equipment, will be completed based on the following criteria:

1. Final site inspections by the city representative and the City Engineer have been completed and accepted.
2. The tower and related equipment shall be installed and operational for a minimum of 15 days after acceptance testing is successfully completed before final acceptance.

1.06 Bidder/Contractor Responsibilities

Notwithstanding the details presented in these specifications, it is the responsibility of the Bidder/Contractor to verify the completeness of the materials and the suitability of the devices to meet the intent of these specifications. Any additional equipment or service required after execution of a contract (i.e., if a Bidder/Contractor neglects to identify or include a needed piece of equipment with their bid) even if not specifically mentioned herein, shall be provided by the Bidder/Contractor without claim for additional payment; it being understood that a complete and operating system is required. The successful Bidder/Contractor will be obligated to provide a system, which meets all guarantees in his or her bid for the price contained therein.

Submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered in performing the work. Any additional materials, labor, and/or equipment that the bidder deems necessary to insure a satisfactory installation for the purpose intended, shall be noted in the bid and the cost included in the bid quotation.

1.07 Addendum to Specifications

Any substantive interpretation, correction, or change of the bid documents shall be made by addendum to bidders of record. Interpretation, corrections, or changes of the bid documents made in any other manner shall not be binding, and bidders shall not rely upon such interpretations, corrections, or changes. Any addendum shall be issued within a reasonable time prior to the bid deadline.

1.08 Specifications For Certain Equipment

In certain cases in this RFP, specifications and/or brand names of a certain manufacturer may be quoted.

1.09 Successful Bidder/Contractor Selection

Bids will be evaluated by the city for conformance to the project specifications.

The bid award shall be based upon, but not necessarily limited to the following criteria:

- A. Adherence to all specifications and other bid requirements, including contingency plans.
- B. Bidder's general reputation and experience in the field.
- C. City's evaluation of the bidder's ability to fulfill the requirements of the contract.
- D. Cost of the Bidder/Contractor's bid.

The evaluation of bids and the determination as to the quality of the supplies, materials, labor, and equipment offered shall be the responsibility of the city and will be based on information furnished by the bidder, or identified in his/her bid as well as other information reasonably available to the city. The city shall make such investigations as it deems necessary to determine the ability of the bidder to perform the work specified in these documents and the bidder shall furnish to the city all such information and data for this purpose as the city may request. The successful bidder shall supply the names and addresses of major suppliers when required to do so by the city. The contract will be awarded to the Bidder/Contractor who is, in the exclusive review of city, the most qualified bidder.

1.10 Contract Award

The contract for this entire project of furnishing all equipment, and the installation as specified, will be to the lowest and best bidder as determined by city. The city specifically reserves the right to reject any and all bids, to consider alternatives, to waive any minor irregularities and technicalities, to purchase equipment and services available on existing state contracts, and to re-solicit bids.

1.11 Terms and Conditions of Award

The terms and conditions for contract award imposed herein shall govern in all cases, and conflicting terms or conditions submitted by the bidder may constitute sufficient grounds for rejection of the bid.

1.12 Delivery

The equipment purchased shall be delivered to its proper location and installed by the Bidder/Contractor without additional cost or expense to the city and at the convenience and direction of the city. The city shall not be deemed to have accepted any component or piece of equipment until such time as said equipment has been installed and operating in accordance with the specifications.

1.13 Risk of Destruction or Damage

Prior to the acceptance of such equipment purchased by the city, the Bidder/Contractor shall be responsible for destruction or damage of such equipment while in transit, storage, or partially installed.

In the event destruction or damage occurs to such equipment or to existing city owned land, equipment, or facilities, the Bidder/Contractor shall replace or repair such equipment and/or facilities without additional cost or expense to the city. The city retains the right to determine if repairs are required and that said repairs, when completed, are acceptable.

1.14 Prosecution of Work

The tower and related equipment, and the installation thereof, shall be accomplished with the minimum of interruption to normal city business operation.

All work shall be done in a neat and professional manner and shall comply with the applicable national, state, and local codes and regulations.

1.15 Supervision By Bidder/Contractor

The Bidder/Contractor shall have a complete set of plans and specifications available on the project at all times while the work is in progress, shall assume full responsibility for supervision of the work irrespective of the amount of work sublet, and shall give the project the constant attention necessary to facilitate satisfactory progress and to assure completion in accordance with the terms of the Contract.

During the life of the Contract, the Bidder/Contractor shall identify and provide at all times a competent person/individual in charge of the overall project, who will be personally available within 24-hours notice. This person may be either the Bidder/Contractor or a responsible employee. This individual shall be fully authorized to conduct all business with the subcontractors; to negotiate and execute all Supplemental Agreements; to execute the orders and directions of the Engineer without delay; and to promptly supply the materials, equipment, tools, labor, and incidentals necessary for prosecution of the work.

At all times while work is actually being performed, the Bidder/Contractor shall employ a competent individual who is authorized and fully capable of managing, directing, and coordinating the work in progress; who is thoroughly experienced in the type of work being performed; who is capable of reading and thoroughly understanding the Plans and Specifications; and who is authorized to receive instructions from the city's representatives.

1.16 Proprietary Statement

At the **conclusion** of the selection process, the contents of all bids shall be placed in the public domain and be open to inspection by interested parties. All requests for said inspections shall be directed to the city.

Trade secrets or proprietary information that is recognized as such and protected by law may be withheld **if clearly identified in the bid proposal**. Proprietary restrictions normally are not accepted. However, when accepted, it is the Bidder/Contractor's responsibility to defend the determination in event of an appeal or litigation.

1.17 Laws To Be Observed

The Bidder/Contractor shall keep fully informed of all Federal and State laws; all regulations pertaining to the Occupational and Safety Hazards Act (OSHA); all local laws, ordinances and regulations; and all orders and decrees of bodies and tribunals having any jurisdiction or authority, which in any manner affect the conduct of work. The Bidder/Contractor shall at all times observe and comply with all applicable laws, ordinances, regulations, orders, and decrees, and shall protect and indemnify the city and its representatives against all claims and liabilities arising from or based on Bidder/Contractor or employee violations.

Upon discovering any provisions in the contract that are contrary to or inconsistent with any law, ordinance, regulation, order, or decree, the Bidder/Contractor shall immediately report it to the city in writing.

1.18 Site Visit

It is assumed that Bidder/Contractors planning to submit a bid for this project will desire to visit the property where the tower is to be built. The site is currently under construction. Bidders are welcome to visit the site to become familiar with the area on their own, and this site visit should be coordinated with the General Contractor. A personal site visit is not required to be an acceptable bidder. Bidder/Contractors will be responsible for their own transportation and all costs, expenses, or damages incurred during site visits.

1.19 Method of Payment

The City plans to purchase the tower and related equipment outlined for this project via the following payment schedule:

Phased Purchase:

- ▶ 25 percent upon contract signing
- ▶ 25 percent upon delivery of equipment to sites
- ▶ 50 percent upon system final acceptance

Invoices shall be sent to:

**City of Murphysboro
IT Director
1101 Walnut Street
Murphysboro, IL 62966**

SECTION 2.0 - INSTRUCTIONS TO BIDDER/CONTRACTORS

2.01 Bid Documents

Two copies of the bid proposal, appropriate bid forms, and any other documents submitted with the bid shall be mailed or submitted to:

WWTP Communications Tower Bid
City of Murphysboro
1101 Walnut Street
Murphysboro, IL 62966

Note: Receipt of delivery to any other location does not constitute delivery.

2.02 Bid Responses

Your understanding and response to these specifications must address the requirements of each Section. The contents of this bid, by the successful potential Bidder/Contractor, shall become a contractual obligation if accepted by the city. All bid prices must be valid for 90 calendar days from response due date.

All bid responses must be labeled: **WWTP COMMUNICATIONS TOWER BID.**

Bids may be withdrawn or resubmitted any time up to the deadline for bid closing. Any request to withdraw a bid must be made in writing to:

Brian Manwaring, IT Director
City of Murphysboro
1101 Walnut Street
Murphysboro, IL 62966
Phone: (618) 687-4216
E-mail: bsmanwaring@murphysboro.com

No Bidder/Contractor may withdraw a bid after the actual date of the bid opening.

If no bid is received from a Bidder/Contractor by the bid due date, it will be assumed that they do not intend to bid. Failure to respond will forfeit consideration. Bids received after the scheduled bid opening date shall be returned to the Bidder/Contractor unopened.

2.03 Bid Opening

Bids received prior to the bid due date will be kept secure and unopened. The Human Resource Manager / Administrative Assistant to the Mayor shall determine when the specified due date and time has arrived. No bid received after the bid due date and time will be considered and will be returned to the Bidder/Contractor unopened.

No responsibility will attach to the city for unintentional premature opening of a bid not properly addressed and identified.

2.04 Postponement and Rejection of Bids

The city shall have the right to postpone the bid opening for its own convenience, or to reject any or all bids not accompanied by any other required data. The city reserves the right to reject a bid that is in any way incomplete or irregular.

2.05 Bid Bond

A properly executed bid bond or a cashier's check payable to the City of Murphysboro in the amount of not less than ten percent of the Base Bid shall accompany each bid as a guarantee that if the bid is accepted, the bidder will execute and file the proposed contract within ten days after receipt of Notice of Intent to Award a Contract. Surety bond shall be written in the form of AIA Documents A310, Bid Bond, and the documents shall be signed or countersigned by an Illinois resident agent. The Attorney-in-Fact who executes the bond on behalf of the surety shall affix a certified and current copy of his Power of Attorney. No other type of bid surety will be accepted. The city will have the right to retain the bid security of bidders until either (a) the contract has been executed and bonds, as required, have been furnished; or (b) the specified time has elapsed so that bids may be withdrawn; or (c) all bids have been rejected.

2.06 Performance Bond

A Performance Bond in the amount of 100 percent of the project price will be required of the successful bidder upon award of contract. The cost of providing a Performance and Payment Bond shall be added to the contract price. Performance and Payment Bonds shall be accompanied by a certified copy of Power of Attorney and shall be signed or countersigned by an Illinois resident agent of the bonding company.

Bidders are to include the expected cost of a Performance Bond as a separate line item in their bids.

2.07 Information To Be Submitted With Bids

The bidder shall submit the following information to be included in the bid as evidence of compliance with the city's specifications (see Section 5 for Bid Proposal Format). **A bid may be rejected if the responses to the requested specifications are incomplete or if the proposed equipment deviates from the specifications.**

- A. A complete list of all equipment proposed for the installation, which shall specify manufacturer and individual model numbers. All equipment and component parts furnished shall be new, meet the minimum requirements stated herein, and be in operable condition at the time of delivery.
- B. The Bidder/Contractor shall furnish free of charge with their bid drawings, technical information, graphs, charts, photographs, diagrams, instruction books, and/or other means to show that the proposed equipment fully complies with this specification.

In the event the published literature furnished by the Bidder/Contractor is a variance with the requirements of any item of this specification, the Bidder/Contractor shall explain in detail, with full engineering support data, the reason why the proposed equipment will meet specification and not be considered an exception thereto. A Bidder/Contractor must request any such variance no later than 15 calendar days prior to the date of bid opening.

- C. A detailed description of any special equipment.

2.08 Exceptions and Alternate Bids

Exceptions to any part of the requirements stated in this request must be clearly identified as exceptions. Alternate bids for equipment may be submitted by Bidder/Contractors for consideration provided the Bidder/Contractor has first provided a detailed response to the primary proposal and as long as the equipment specified meets the intent of the specifications. Bidder/Contractors are required to submit with the proposal package complete documentation of any alternate equipment to be proposed for analysis of suitability by the city.

All alternate proposals shall be **in addition to a fully compliant proposal**, shall be self-supporting, and shall clearly indicate the differences between the alternate and the fully compliant bid.

All Bidder/Contractors are hereby advised that bids must be submitted on the equipment as specified herein and that any bids submitted with an alternate equipment option will not be considered unless the bid contains prices for the equipment precisely as specified herein, as well as prices for the proposed alternate. **Alternate bids are not acceptable unless they are supplied with a fully compliant bid.**

2.09 Prices

All prices shall include warranty and delivery to the purchaser. Payment will be made only for equipment and services purchased under contract with the Bidder/Contractor. Payment will not be made for submission of bid or any part thereof.

2.10 Breakdown of Costs

The Bidder/Contractor(s) must provide a complete breakdown of cost by **major item** (see Detail Pricing Schedule). A cost for each sub-item shall be included for equipment and installation. If one or more of these sub-items require no cost to the Bidder/Contractor and, respectively, no cost to the purchaser, the sub-item shall be marked "no cost."

2.11 Quantities

Quantities specified in the specification are the best estimates of needs and are submitted to establish unit prices. The city reserves the right, within reason, to increase or decrease the quantity of equipment purchased.

The Bidder/Contractor agrees to accept orders for items on this list at the prices quoted for a period of one year from the date of contract award, subject to an adjustment tied to the cost of living. Indicate on the bid item schedule whether you will extend your prices for these potential additional purchases. Your response will not be a factor in the award.

2.12 Miscellaneous Items

The Bidder/Contractor shall provide all equipment, materials, and supplies necessary for a complete operational system.

2.13 Detailed Equipment Specifications

Bids will be rejected that do not have the detailed specifications, catalog numbers of items, and any other data specifically requested. Technical data sheets containing detailed specifications shall be provided as part of the Bidder/Contractor's bid.

2.14 Warranty

All equipment including material used therein shall be guaranteed by the Bidder/Contractor against mechanical, electrical, design, and workmanship defects. In the event defects become evident within the warranty period, the Bidder/Contractor shall furnish replacement parts, materials, and procedures, and labor as necessary, at no cost to the city. The Bidder/Contractor shall be liable to the city for supply of information and materials necessary for mandatory revisions and updates determined by the manufacturer at no cost to the purchaser for the duration of the warranty period.

The duration of the warranty period shall be stated by the Bidder/Contractor in their bid and shall be at least one year. **The warranty period shall commence on the date of system acceptance**, not on the date of equipment delivery or completion of installation. If it appears at any time within one year after installation and/or system final acceptance that the equipment does not meet the system performance or individual equipment specifications and the city has notified the Bidder/Contractor promptly in writing of such deficiencies, the Bidder/Contractor shall within 14 days of notification correct the deficiency or make necessary repairs or replace any defective equipment or system to meet these specifications.

In addition to these general warranty requirements, the following specific requirements apply:

- A. The Bidder/Contractor warrants that all equipment conforms to its published specifications.
- B. The Bidder/Contractor warrants that the equipment delivered under this contract conforms to the contract requirements and is free of any defect of equipment, material, or workmanship.
- C. The Bidder/Contractor warrants that all equipment furnished here under is new, current manufacture, and includes the latest hardware and software (if appropriate) designs being delivered by each manufacturer.
- D. Under this warranty, the Bidder/Contractor shall remedy at its own expense any failure to conform to the general contract terms, specifications, or any other document included by reference into this contract. Bidder/Contractor also agrees to remedy at its own expense any defect in materials or their workmanship.
- E. The Bidder/Contractor shall remedy at its own expense damage to city owned or controlled real or personal property, when that damage is the result of the Bidder/Contractor's failure to conform to the contract requirements. The Bidder/Contractor shall also restore any work damaged in fulfilling the terms of this contract.

The Bidder/Contractor's warranty with respect to work repaired or replaced hereunder will run for one year from the date of such repair or replacement.

- F. Should the Bidder/Contractor fail to remedy any failure, defect, or damage within a reasonable time after receipt of notice thereof, the city shall have the right to replace, repair, or otherwise remedy such failure, defect, or damage at the Bidder/Contractor's expense. This failure is also a breach of contract. Thus, the city's rights are in addition to and not as an alternative to the city's rights under breach of contract.

- G. In addition to the other rights and remedies provided by this contract clause, all subcontractors', manufacturers', and suppliers' warranties expressed or implied, regarding any work and materials shall, at the discretion of the purchaser, be enforced by the Bidder/Contractor for the benefit of the purchaser. The Bidder/Contractor shall obtain any warranties which the subcontractors, manufacturers, or suppliers would give in normal commercial practice.
- H. If directed by the city, the Bidder/Contractor shall require any such warranties to be executed in writing to the purchaser.
- I. The "acceptance" of equipment by the city shall not limit the city's rights with respect to material defects, workmanship, or fraud.
- J. If there is a conflict between a clause in this warranty and a clause in the Bidder/Contractor's warranty, the clause which extends the greatest protection to the city under the circumstances in question shall control.

2.15 Liquidated Damages For Failure to Complete Work On Time

Time is an essential element of this contract. If the Bidder/Contractor fails to provide a complete and operational system by the specified or otherwise **agreed upon date of completion** for any reason excepting delays caused by Acts of God, or other conditions beyond the control of the Bidder/Contractor, it is hereby agreed that the city shall have the right to deduct as liquidated damages from any money or moneys due or coming due to the Bidder/Contractor an amount equal to \$500 per day for each and every calendar day after the contract completion date, during which time the contract remains unfinished and uncompleted. Any moneys deducted are not to be construed as a penalty, but as liquidated damages to compensate for the additional costs incurred by the city.

2.16 Incurring Costs

The city is not liable for any costs incurred with replying to this RFP.

2.17 Patent and Royalty Infringement

The successful Bidder/Contractor shall agree to defend at his/her own expense all suits alleging infringement on any patents or royalties by reason of the use or resale of any apparatus furnished or used and will save the city harmless from any and all expense of defending said suits from all payments which may be assessed against the city on account of such infringement.

2.18 Non Discrimination

All Bidder/Contractors agree that during the life of the contract, the Bidder/Contractor will not discriminate against any employee or applicant for employment because of race, color, creed, national origin or ancestry, religion, sex, sexual orientation, age, marital status, public assistance status, handicap or disability, and will require a similar provision in all subcontracts entered into for the performance thereof. All bids will be accompanied by a signed statement of this fact with failure to sign reason for bid rejection.

2.19 Insurance

All Bidder/Contractors and Subcontractors shall purchase and maintain such insurance as will protect the Bidder/Contractor, and the City of Murphysboro as an additional insured from claims set forth below which may arise out of or result from the Bidder/Contractor's operations under the contract whether the operation be by the Bidder/Contractor, by a Subcontractor, or by anyone employed by

them. The successful Bidder/Contractor must submit prior to contract award, evidence of insurability in the amounts as specified below, (A Certificate of Insurance).

The Bidder/Contractor must maintain said insurance until the all project equipment and work is completed and accepted by the city. Basic insurance and liability requirements are as follows:

Employer's Liability Insurance as provided in the applicable law.

Commercial General Liability:

- ▶ Bodily Injury \$1,000,000 (per occurrence)/\$2,000,000 (aggregate) – Minimum Amount.
- ▶ Property Damage \$1,000,000 (per occurrence)/\$2,000,000 (aggregate) – Minimum Amount.

Commercial Automobile Liability:

- ▶ Bodily Injury - \$1,000,000 – Minimum Amount.
- ▶ Property Damage - \$1,000,000 – Minimum Amount.

Umbrella/Excess Liability - \$4,000,000 – Minimum Amount.

2.19.1 Hold Harmless Protection In addition to insurance coverage(s) provided above, the Bidder/Contractor, any Subcontractor, and all employee(s) thereof shall defend, indemnify, and save the City of Murphysboro, its officers, affiliates, Project Consultant, engineers, and employees from any and all claims, suits, losses, damages, or expenses, including attorney fees and costs, on account of injuries or death of any or all persons or property damages sustained and caused by an act, omission, neglect, or misconduct of said Bidder/Contractor, Subcontractor(s), and any agents and employee(s) thereof.

2.20 Requirements for All Insurance

All insurance policies (or riders) required by this specification, unless otherwise accepted under this section, shall be:

- A. With a rating of not less than “A-” as listed in the Best Insurance Guide.
- B. Taken out by Bidder/Contractor and maintained with responsible insurance companies organized under the laws of one of the states of the United States and qualified to do business in the State of Illinois.
- C. Shall contain a provision that the insurer shall not cancel or revise coverage thereunder without written notice to Bidder/Contractor as an insured party and to the city as an additional insured at least 30 days before cancellation or revision becomes effective.

2.21 Worker’s Compensation

- A. Prior to commencement of Contract term, the successful Bidder/Contractor shall submit a signed statement to the city evidencing Bidder/Contractors compliance with the Workers’ Compensation insurance coverage requirement of the State of Illinois. In any case where subcontracting is approved, the Bidder/Contractor shall require the subcontractor to provide workers’ compensation insurance, all in accordance with statutory requirements. Evidence of subcontractor’s insurance shall be filed with the Bidder/Contractor.
- B. Employer’s Liability \$2,000,000 – Minimum Amount.

2.22 Independent Contractors

The Bidder/Contractor(s) and all employees of the successful Bidder/Contractor(s) shall *not* be considered employees of the city while engaged in the performance of any work or services required herein, and shall be Independent Bidder/Contractors. Any and all claims that may arise under the Workers' Compensation Act of Illinois on behalf of said employees, and any and all claims made by any third party as a consequence of any act of omission on the part of the work or service provided to be rendered herein shall in no way be the obligation or responsibility of the city.

2.23 Prevailing Wage Requirements

The successful Bidder/Contractor shall be an "Equal Opportunity Employer" as required by the Fair Employment Practices Act. The successful Bidder/Contractor shall be required to pay prevailing wages as provided by local, state, and federal laws and as is defined by the federal Davis-Bacon Act requirements and shall comply with the Illinois Prevailing Wage Act (820 ILCS 130/1-12).

2.24 Coordination of Project Activities

The successful Bidder/Contractor(s) will coordinate all project activities related to the tower equipment installation with the city's assigned representative supported by the city's Project Manager. The city shall have the right to modify installation plans and schedules, if the city sees fit.

The role of the successful Bidder/Contractor(s) project manager and that manager's relationship with the city is covered in Section 1.15.

2.25 Installation Requirements

The cost of installation of all equipment requested shall be included in the bid price as a separate item as indicated on the bid form. Upon completion of the installation, all systems and equipment shall operate in accordance with the specifications.

2.26 Permits

The successful bidder(s) shall, with the assistance of city, acquire any licenses and permits necessary to the successful completion of this project. Fees for permits will be included in the Bidder/Contractor's bid response. The successful bidder shall be responsible for any required modifications to permits and licensing.

2.27 Certification

Each firm submitting a bid shall certify that he/she is actively and primarily engaged in the manufacture and/or installation of commercial communications tower equipment or regularly provides other equipment or services required by this bid.

2.28 Permission to Proceed

Bidder/Contractor(s) must obtain the city's permission before proceeding with any work necessitating:

1. Cutting into or through any part of a building structure
2. Climbing on any city building or other structure
3. Commencing construction on any city property
4. Commencing construction on any property leased by the city

SECTION 3.0 - PROJECT EQUIPMENT SPECIFICATIONS

3.01 Tower Specifications

A. General Tower Configuration Information

The city requires the towers for this project to be configured in the following manner:

1. **Tower Face Size**: To be determined by Bidder/Contractor, but shall be sufficient for support of proposed equipment configuration. The lower level(s) of the tower shall be sized based on the recommended engineering design of the Bidder/Contractor.
2. **Antenna Loading**: The tower should be designed to have attached at a minimum 1 Ubiquity Air-Fiber radio/antenna combo unit, 1 Pan-tilt-zoom security camera and one ball-bat style VHF antenna.
3. **Tower Lighting**: It is the city's understanding that the specifications for this tower will not require lighting under FAA & FCC rules. All bidders are to verify this and if necessary include pricing for any lighting which may be required by either the FAA or the FCC
4. **Painting**: Not required
5. **Climbing Safety Device**: Required

Tower Analysis and Design

1. The structure shall be designed to support all specified antennas, including future antennas, and to hold all antennas on path within twist, sway, and displacement limits of TIA/EIA-222 Standard, latest version.
2. The tower, when fully loaded with antenna assemblies and other appurtenances, shall be designed for the minimum wind loads required by TIA/EIA-222 Standard, latest version.
3. Tower design shall also be designed to meet minimum wind loading requirements with consideration of radial ice accumulation to all parts of the tower, antennas, and accessories, in accordance with State of Illinois requirements.
4. Under wind pressures up to 35 mph, all horizontal members shall be capable of supporting a 250 pound vertical load at mid-span, in addition to other design loads.

B. Tower Products and Materials

1) Fabrication

- a) All fabrication, erection, and identification of structural steel shall conform to AISC specifications.
- b) Under no circumstances shall "dissimilar metals" be used in contact with one another.
- c) Hot-dipped galvanizing of tubular sections (if any) shall be inside and outside per standards and methods listed elsewhere in this specification.
- d) Quality welding processes and welding operators shall be in accordance with AWS "Standard Qualification Procedure".
- e) Properly mark and match-mark materials for field assembly. Prepare for a delivery sequence, which will expedite erection and minimize field handling of materials.

2) Connections and Locking Devices

- a) No field welding shall be permitted unless specifically approved in writing.
- b) All members shall connect with galvanized structural bolts unless otherwise approved.
- c) All threaded fasteners shall extend not less than 1-1/2 threads beyond all threaded fasteners nuts and locking devices.

3) Material Finishes

- a) All steel members and fasteners shall be galvanized (zinc coated) per standards listed elsewhere in this specification.
- b) Under no circumstances shall any coating on any metal member or fastener be cathodic relative to the base material.
- c) Painting of tower structure is not required.

C. Foundations and Tower Installation

1) Foundation Design

- a) The Bidder/Contractor in conjunction with tower manufacture shall develop foundation designs.
- b) Foundation designs should utilize, as a minimum, 3,000 psi concrete and grade 60 reinforcing steel.
- c) Safety factor for uplift for tower footings shall meet minimum requirements as specified in TIA/EIA-222 Standard, latest edition.
- d) Where abnormal soil conditions are encountered, to the extent that additional charges may be incurred, the city must be notified and verify said conditions.

2) Foundation Installation

- a) All concrete construction methods shall conform to the applicable section of ACI 318, latest revision.
- b) All materials shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Deteriorated materials shall not be used in the work.
- c) Concrete shall be conveyed from the mixer to the place of final deposit by methods that will prevent separation or loss of material.
- d) When concreting is started, it shall be carried out as a continuous operation until the section being poured is completed.
- e) When the free fall of concrete is greater than ten feet, a placing trunk shall be used to direct the concrete and to avoid hitting the forms, form ties, or reinforcing steel, thus preventing segregation.
- f) To ensure uniform production of concrete, representative samples will be taken at the request or/and under the supervision of the engineer for the purpose of making cylinders for strength tests. All tests will conform to ACI methods and the appropriate ASTM specifications.

- g) Forms shall be constructed in accordance with the following guidelines:
- ▶ Forms shall conform to the shapes, lines and dimensions shown on the drawings, and be of adequate strength and tightness to support the fresh concrete without undue deformation and without loss of mortar.
 - ▶ Forms shall be properly braced and tied together to maintain their position and shape when concrete is tamped and/or vibrated. Any misshapen concrete resulting from sagging or bulging forms may be rejected.
 - ▶ One-inch chamfer shall be provided on the edges of exposed footings, equipment pads, beams, and columns.
 - ▶ Forms for permanently exposed surfaces shall produce a smooth, even finish without fins.
 - ▶ No splashing of oil on forms will be allowed.
 - ▶ All piers shall project a minimum of six inches above the finished grade.
- h) Removal of forms shall be done in a manner that will assure complete safety of the structure and concrete. Forms may be removed after 24 hours, provided the concrete has sufficiently hardened to prevent its being damaged during subsequent construction.
- i) Reinforcing shall be in accordance with the following:
- ▶ No splashing or oil coating of any kind will be permitted on any part of the reinforcing steel.
 - ▶ Reinforcing steel shall be manufactured from new billet steel, intermediate grade, deformed bars, in accordance with the Standard Specifications of the ASTM A615, latest edition.
 - ▶ Welded wire fabric reinforcement shall be in accordance with the Standard Specification of the ASTM A185, latest edition.
 - ▶ Metal reinforcement shall be accurately positioned and secured against displacement, and shall be supported in a manner that will keep all metal away from the exposed surface. The minimum distance between any bar and the exposed surface shall be not less than three inches when placed against earth or 1-1/2 inches when concrete is placed against form work.
- j) Concrete shall not be placed when temperatures of 32 degrees Fahrenheit or lower are likely to be experienced unless the **Recommended Practice for Cold Weather Concreting** (ACI 306-66) is followed. Accelerators such as calcium chloride shall not be used except by permission of the city's field engineer and the Bidder/Contractor's design engineer, and then shall be limited to a maximum of two percent by weight of cement. Concrete shall not be placed on frozen sub grade or in frozen forms or handled in equipment containing ice or snow. The sub grade and forms shall be thawed out by the use of vented heating methods. Open flame heating methods will not be permitted.
- k) Before depositing new concrete on or against concrete that has hardened, the forms shall be retightened, the surface of the hardened concrete shall be roughened as required, thoroughly cleaned of foreign matter, and painted with a bonding agent composed of epoxy resin, in strict accordance with the manufacturer's instructions.

- l) No freestanding water will be allowed within the foundation excavation before and during the placement of concrete.
- m) All reinforcement bars shall be new and free of loose scale.
- n) All requirements for inspections will be followed as required in Jackson County and the City of Murphysboro. It is the responsibility of the vendor to discover, follow, and close out all inspection requirements with the proper regulatory agencies.

3) Tower Erection

- a) The Bidder/Contractor shall furnish all necessary personnel, supervision, tools, equipment, and transportation required to complete the installation and erection of all items specified herein.
- b) Any members which sustain damage shall be reported to the city.
- c) Correction of damage shall not be done by Bidder/Contractor without approval of the city.
- d) After materials have been unloaded, the Bidder/Contractor shall inventory all parts per the bill of materials and report immediately to the owner that:
 - ▶ Materials received agree with the bill of materials,
 - ▶ There are shortages and/or damaged materials, listing all such items.
- e) The actual location of the tower, building, and other structures will be determined by the city; these are shown on the drawings that accompany this specification. Tower orientation is also shown.
- f) All structural members shall be set accurately to the lines and elevations indicated on the erection drawings. Align and adjust the various members forming each tower bay before permanently fastening.
- g) The Bidder/Contractor shall maintain a check of tower plumbness during all phases of the erection work. After completion of construction, with all joints tight, and all appurtenances installed, the Bidder/Contractor shall make a final check of the tower plumbness.
- h) Field modifications including welding or burning of holes in members is not acceptable.

D. Tower Accessories

1) Tower Lighting - not believed to be needed, see section 3.01A3

2) Grounding and lightning Protection

- a) Tower shall be supplied with a complete grounding system that conforms to the minimum requirements of TIA/EIA-222, Section 12, and "Protective Grounding." Motorola R56 standards will also apply.
- b) Tower shall be attached to three ground rods, 5/8 inch diameter, eight feet long, copper clad, driven not less than eight feet into the ground. If ground rods cannot be driven into ground the full eight foot depth, they may be driven at an angle or buried in a horizontal trench to allow the full eight foot length to be buried. One ground rod shall be provided for each tower leg.

A ground "ring," buried around the base of any new tower installation shall be supplied and installed in conjunction with the ground rods stated above. Tower grounding shall also be connected to the grounding ring supplied as a part of the new PSAP facility.

All grounding wire shall be not less than number two copper, and exothermically welded (via CADWELD or other brand) to ground rods and tower.

- c) Any and all equipment mounted on the tower shall be fastened so as to be effectively grounded.
- d) Testing of grounding systems are the responsibility of the tower Bidder/Contractor, and will be conducted upon completion of the tower and grounding system installation. Testing shall be conducted with the city's representative present.

3) Climbing Devices

- a) Towers shall provide appropriate means for climbing. Approved step bolts or step rungs shall be provided. The maximum allowable vertical spacing of horizontal step members shall be 12 inches. Rungs will be able to support a concentrated load of 250 pounds.
- b) An anti-fall climbing safety device, meeting the requirements of ANSI 14.3, shall be provided and installed.

4) Other Hardware

- a) Cable ladder: A cable ladder shall not be required for this project.
- b) Cable tray/Ice-bridge: The tower supplied for this project will require some sort of support for cables between the tower and the control building. This could be as simple as a wire cable, or as complex as a cable ladder. Bidder should specify what they are including as part of their bid.

SECTION 4.0 - BID FORMAT

The submitted written bid must follow the following format and content detail. Standard brochures and technical specifications may be submitted as addendum material but not as the primary bid proposal data. It is requested and expected that the following bid sections be specifically prepared and perhaps substantiated by addendum material.

All bids are to be typed double-spaced between paragraphs on 8-1/2 x 11-size paper. Each of the following required bid sections are to begin a new page and be separately tabbed. Each page shall be numbered in sequence and have the bidder's identification. The bidder is to include as much pertinent data and information under each section as necessary to ensure proper evaluation of the proposed systems.

- I. **TITLE PAGE**: Identify the equipment being proposed. The name and signature of the bidding company's sales representative and the person's address and telephone number must be provided. The bid proposal must be dated on this page.
- II. **TABLE OF CONTENTS**: A listing of all major and minor topics and associated page numbers must be included.
- III. **SECTION 1.0 BIDDER PROFILE**: This section serves to identify the history of the bidding company.
- IV. **SECTION 2.0 OVERVIEW**: This section is an introduction and synopsis of the bid proposal. The proposed equipment must be identified together with the highlights of each of the following sections. The bidder must include identification of the primary reasons why the proposed equipment and service will best meet the specified requirements. In addition, the bidder's primary strengths with respect to competitive factors should also be presented.
- V. **SECTION 3.0 EQUIPMENT**: This section must describe in functional detail the proposed system and related equipment. This section must include the standard and optional features and the equipment descriptions. The capacity of the proposed system with respect to stations and facilities must be identified. In addition, the complexity of expanding the system must be clearly described.

The purpose of this section is to permit the evaluator to totally understand the proposed equipment without the necessity of referring to other documents or brochures.

- VI. **SECTION 4.0 SERVICE**: This section must describe the service policies associated with the proposed equipment, as they would apply to this project. The number of service personnel trained in the proposed systems in this geographical area must be specified. The number and

size of similar systems in this area should be identified. A sample of the maintenance contract available should be included here.

The address of the bidder's local service centers should also be provided. Please indicate if the current maintenance records at these centers are available for inspection.

Present in as much detail as necessary the proposed service for the tower. Include such items as expected response time, on-site spare parts, possible customer maintenance, etc.

- VII. **SECTION 5.0 DELIVERY AND INSTALLATION:** This section should identify the exact tasks that the customer must perform and/or be responsible for in order to accomplish the delivery and installation. In addition, the exact tasks that the bidder will perform and/or be responsible for in order to accomplish the delivery and installation must also be identified in detail and coordinated with the customer.

The bidder must provide the delivery date, installation period by function (i.e., footings, tower structure, etc.) completion date, the beginning date of acceptance testing, for the new radio system.

- VIII. **SECTION 6.0 REFERENCE DATA:** This section serves to identify installed and related systems with pertinent data such as date of installation, type of towers installed, etc., and the name of the user contact.

- IX. **SECTION 7.0 ADDENDUM MATERIAL:** Any brochures or descriptive functional literature that may assist in the total evaluation may be provided in this section. This section is not to be used to introduce new or initial data. The previous six sections are the sole and primary basis for all evaluations. This section can be used only for substantiating data introduced in the previous sections.

SECTION 5.0

APPENDIX A - BID DOCUMENTS

City of Murphysboro, Illinois

WWTP Tower Project

BID FORM

BID TO:

**City of Murphysboro
WWTP Tower Project
1101 Walnut Street
Murphysboro, IL 62966
Phone: (618) 684-4961**

BID FOR:

The work described as the **WWTP Tower Project**

The Bidder agrees to perform all of the work as described in the specifications document.

The Bidder hereby declares that he or she has carefully examined all Bidding and Contract Documents, prepared by the City of Murphysboro, and that he or she has personally inspected the actual location of the work, and local sources of supply, has satisfied himself/herself as to all the quantities and conditions, and understands that in signing this Bid he/she waives the right to plead any misunderstanding regarding the same.

The Bidder hereby proposes to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, superintendents, perform all work, provide all services, and to construct all work in the bid package stated above and for the bid amount as stated below. The bid amount is to cover all costs incurred in performing the Work as required for this bid package category under the Contract Documents, of which this Bid Form is a part.

The Bidder agrees, if awarded the Contract, to substantially complete the Work of the Contract, subject to the provisions of the Contract Documents.

In submitting this bid, it is understood that the city reserves the right to reject any or all bids, to waive any informality or irregularity in any bid received, and to accept any alternate(s) in any order or combination.

THE UNDERSIGNED operates as a:

_____ Sole Entity

_____ Partnership

_____ Corporation, incorporated in the State of _____

_____ Other (specify) _____

LEGAL NAME OF PERSON, FIRM, OR CORPORATION:

Name _____

Address _____

Phone _____

By _____ Title _____

By _____ Title _____

By _____ Title _____

EXPLANATION OF BID ITEMS AND PROPOSAL FORM

The bidder is instructed to include a complete list in duplicate with his bid organized by item number on the bid proposal, showing manufacturer and model number of each item to be furnished (using attached sample worksheet).

BID ITEMS

Bid Item: Support

Price includes all hardware, accessories, grounding, shipping/delivery, and installation.

SAMPLE BID WORKSHEET

BID ITEM : _____

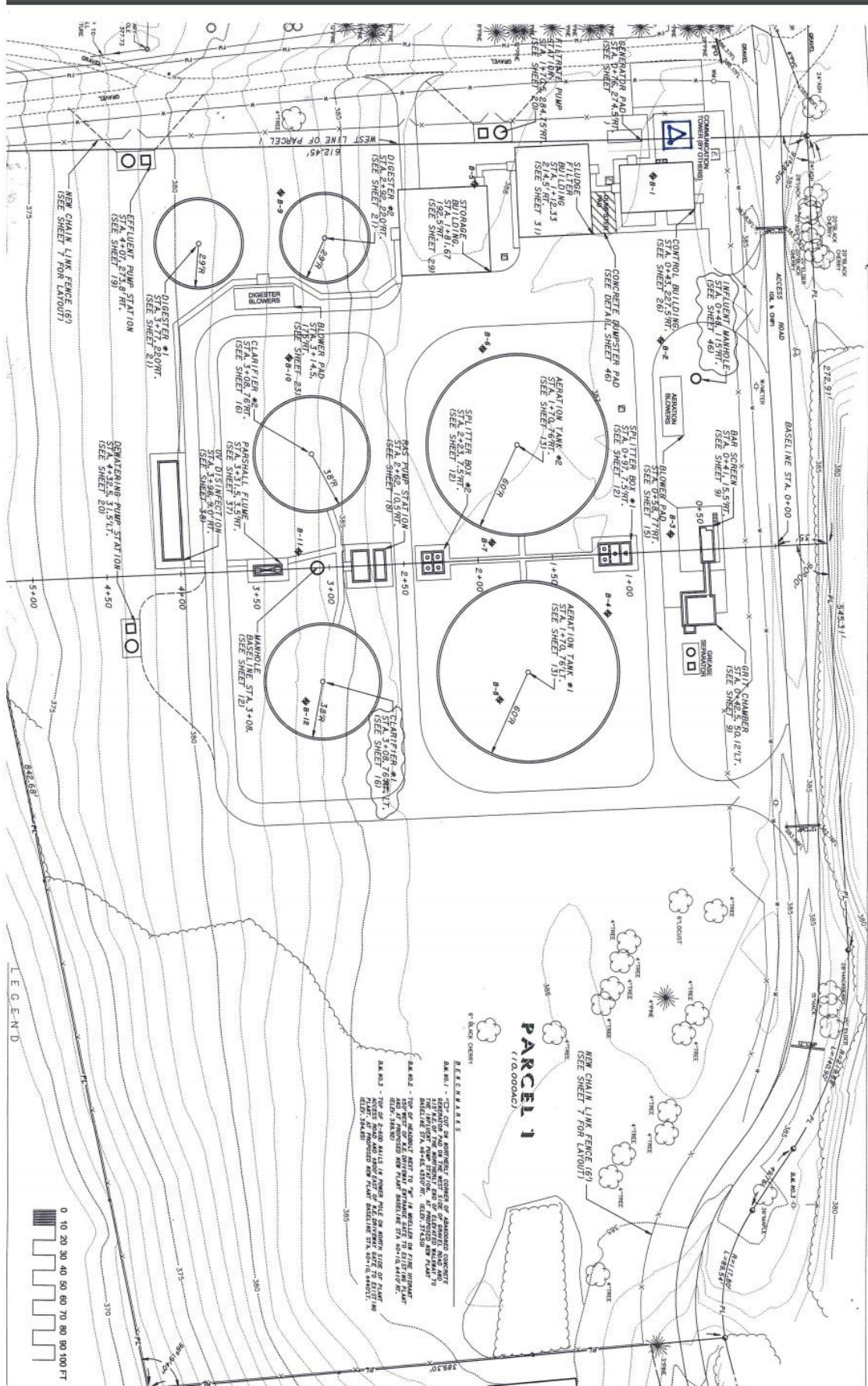
Itemized Schedule to Meet Requirements (include manufacturer and model number of each item as appropriate):

Site Name: WWTP Site

Tower Structure Materials	\$_____
Foundation and Installation	\$_____
Tower Erection	\$_____
Lighting Equipment	\$_____
Delivery/Freight	\$_____
Performance Bond	\$_____
Site Preparations	\$_____
Additional Items	\$_____
 TOTAL COST FOR THIS ITEM	 \$_____

Bidders are recommended to modify this itemized schedule to fit the response to be supplied.

OVERALL SITE PLAN



J. T. BLANKINSHIP, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 ILLINOIS PROFESSIONAL DESIGN FIRM NO. 1394
 401 SOUTH 17th STREET
 MURPHYSBORO, ILLINOIS • 62966 • 618-687-1771

SHEET NAME:		PROPOSED SITE PLAN	
JOB TITLE:		CITY OF MURPHYSBORO WWTP JACKSON COUNTY, ILLINOIS	
ADM#1	SDR	04/08/2015	
	SDR	12/09/2014	
REV	BY	CHECKED BY	DATE
JOB NO. # 8615		SCALE SHOWN	DRAWN BY: SDR
			DATE: 03/01/2013